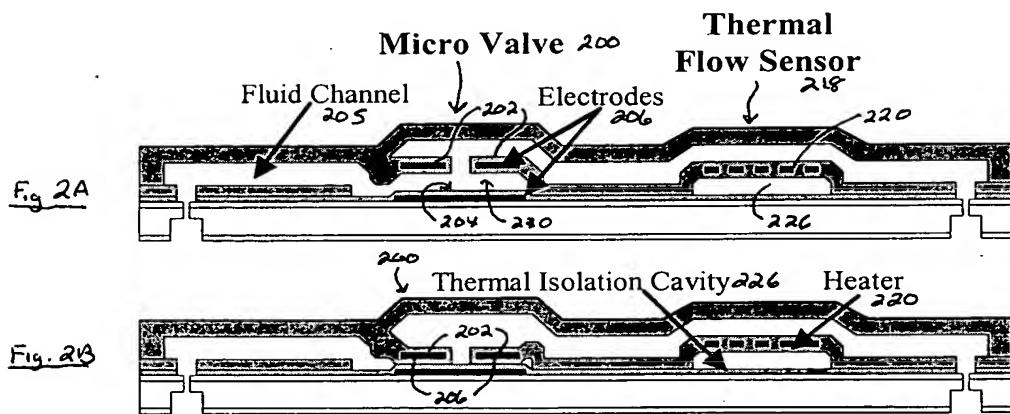
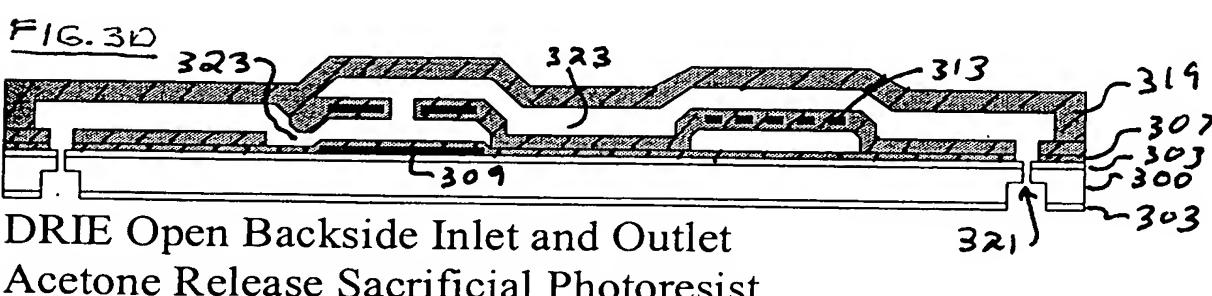
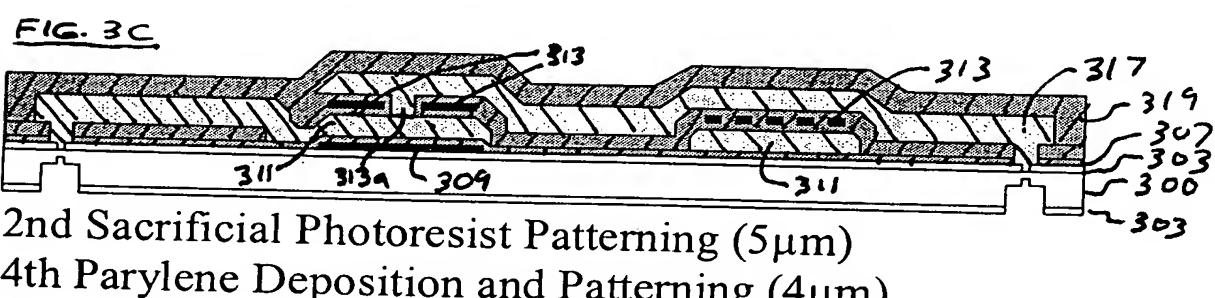
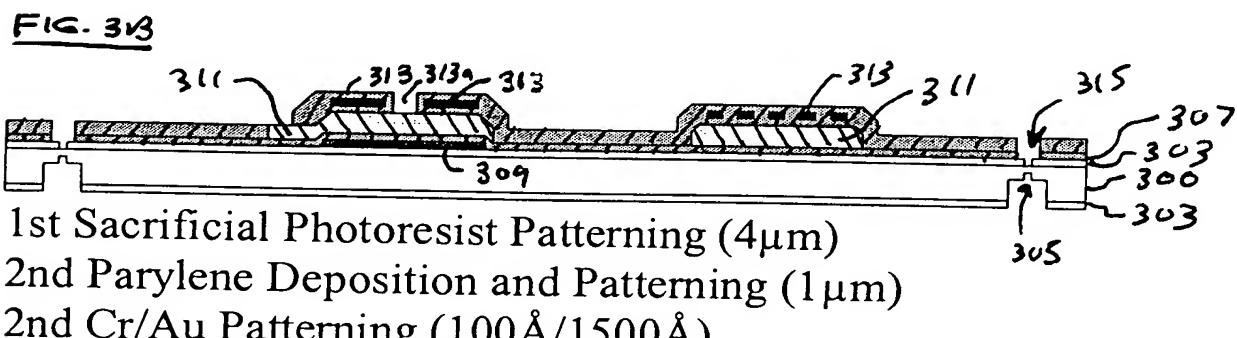
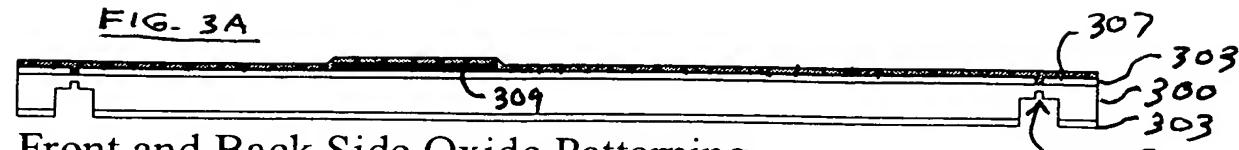


Figure 1. Integrated microfluidic chip mounted on PCB.
Micro flow controller



BEST AVAILABLE COPY



1st Cr/Au 2nd Cr/Au Oxide Photoresist Parylene

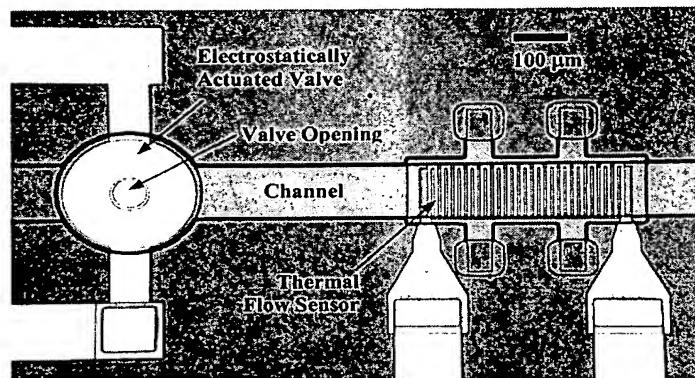


Figure 4. Fabricated Devices

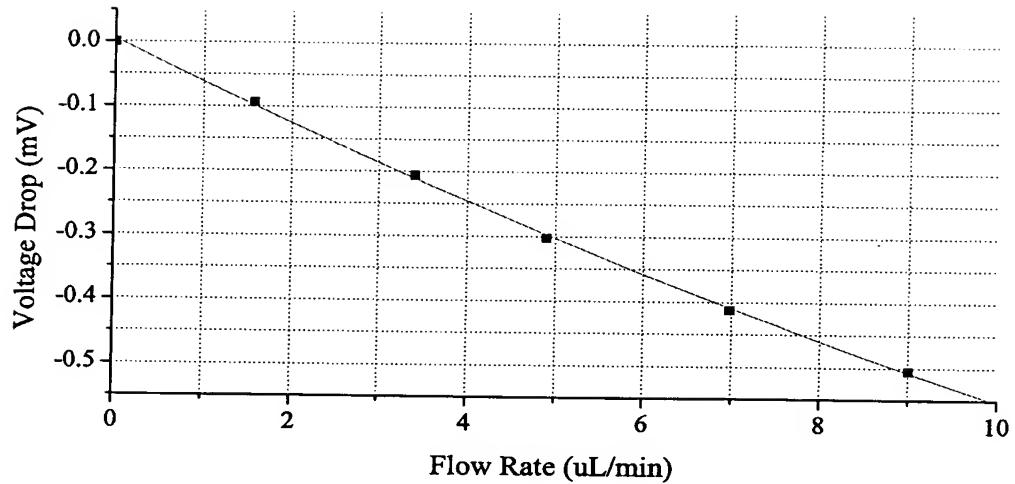


Figure 5. Flow sensor characteristic for air flow.

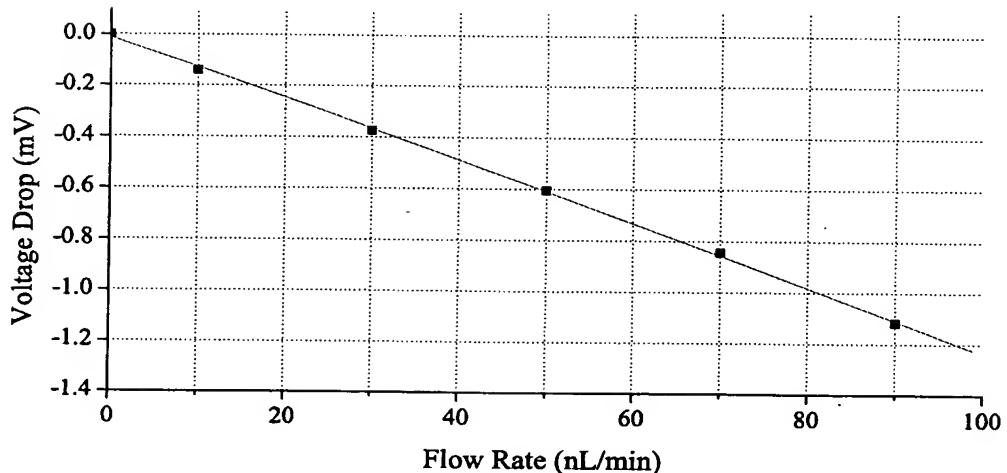


Figure 6. Flow sensor characteristic for water.

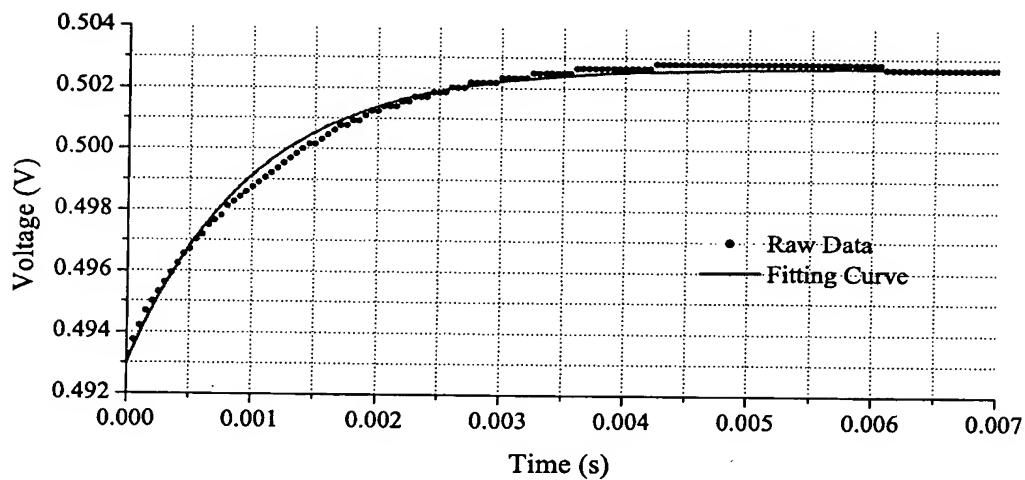


Figure 7. Flow sensor thermal time constant measurement

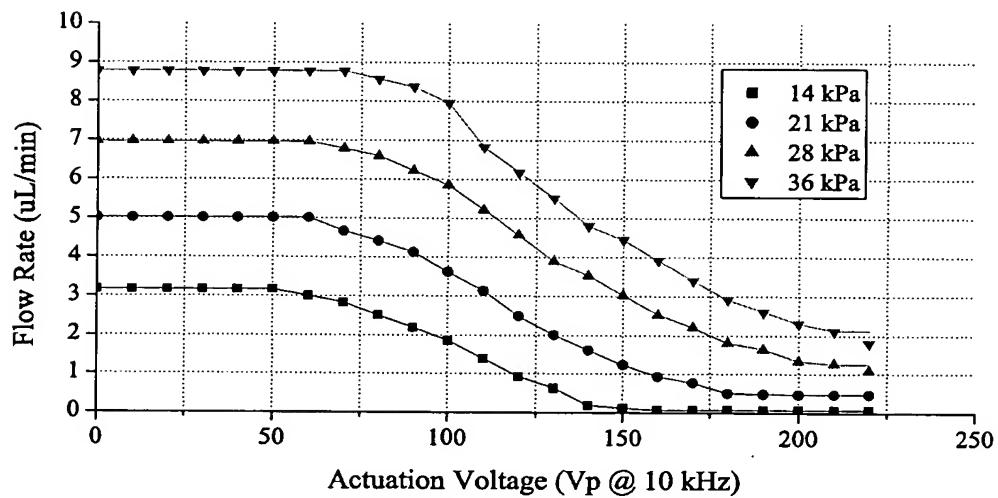
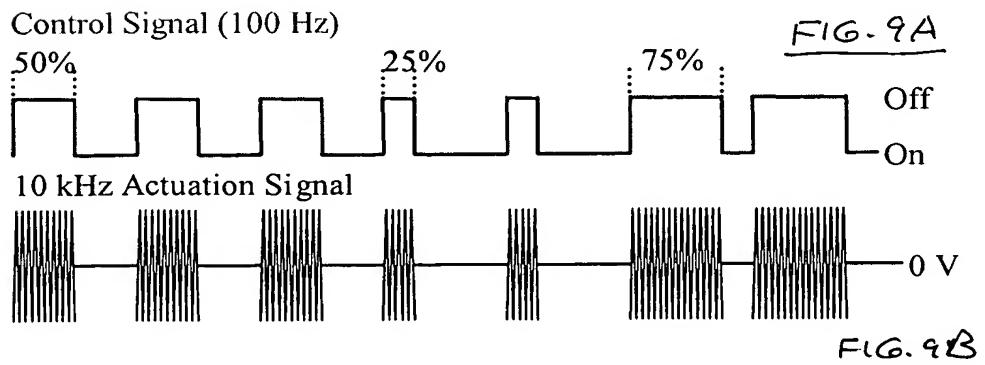


Figure 8. Flow rate vs. actuation voltage.



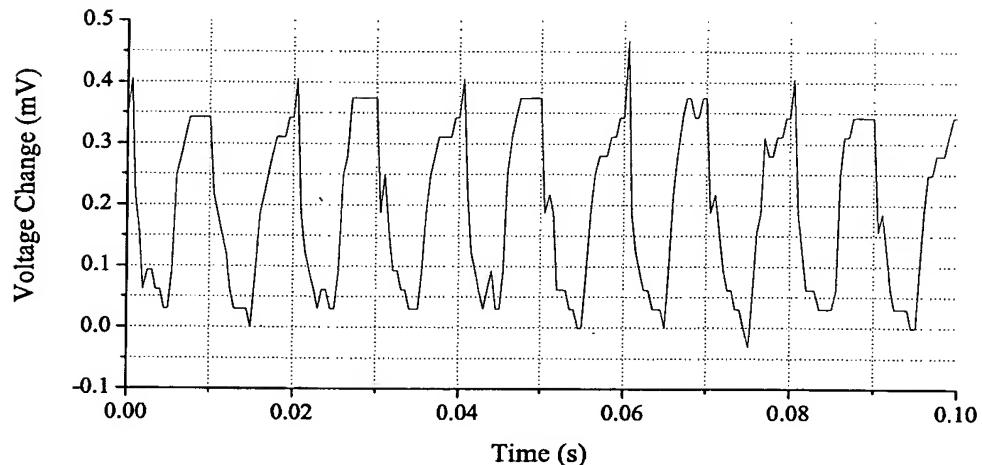


Figure 10. Flow sensor output when the valve is switched by 100 Hz control signal.

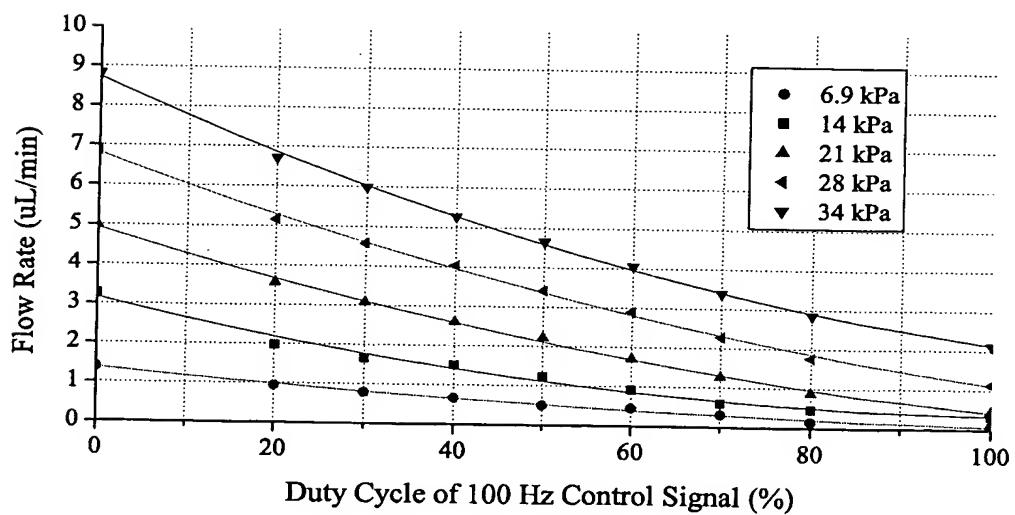


Figure 11. Flow control in PWM mode.